

REMARKS

New independent Claim 26 is submitted in place of Claims 1 and 18. Dependent Claims 2, 6, 13, and 14 are cancelled, as the subject matter of those claims is incorporated into Claim 26. Claims 3-5, 7-12, 15-17, and 19-26 remain, with no claim previously allowed.

Claims 1-3, 5, 6, 8-14, and 16-25 were rejected as unpatentable over newly-cited *Rochford* (GB 1,406,990). The Applicant respectfully traverses that rejection as possibly applied to new independent Claim 26 and the claims depending therefrom.

The Applicant has invented a self-windable cable-wrapping adhesive tape. New Claim 26 defines that tape as comprising a tape-shaped carrier and a pressure-sensitive adhesive coating on one side of the carrier. The carrier consists of a two-yarn system of a pileless plain warp knit, having a ribbed surface on one side and a smooth surface on the other side. The adhesive coating has a grammage of 20-50 g/m² and is located immediately on the smooth surface of the carrier.

A “cable-wrapping adhesive tape” is an adhesive tape designed for wrapping object such as cables in automobiles, pipes, or like elongate objects (Applicant’s specification, page 1, lines 30-36). Desirable characteristics of cable-wrapping adhesive tapes include easy tearability in the lateral or cross-wise direction of the tape, without producing necking or frayed torn edges. The Applicant has produced a self-windable cable-wrapping tape that is hand tearable and is less costly to manufacture (page 4, lines 11-15), with the unexpected results discussed at page 4, lines 24-39.

Rochford discloses a surgical “plaster”, i.e., an adhesive or surgical bandage, comprising a pressure-sensitive adhesive coated on a warp-knitted fabric backing

material extensible in at least one direction. The rejection (page 4) asserts that *Rochford* discloses the claimed invention except for the claimed limitations of material thickness, basis weight, and grammage of the adhesive coating. The rejection seeks to explain away those elements present in the Applicant's invention, but missing from *Rochford*, as being obvious to one of ordinary skill in the art at the time the present invention was made. (The Examiner's argument at the end of the last full paragraph on page 4 alleges obviousness to optimize certain elements "in order to create a self-adhering splint...". That wording, copied from the Office action of September 21, 2005, pertains to *Warthen*, a reference not applied in the present rejection.)

In any case, the Applicant respectfully submits that one of ordinary skill in the art relevant to the present invention, namely, cable-wrapping adhesive tape, would not have found it obvious first to look in the adhesive-bandage art and then to modify nearly every feature of the adhesive bandage disclosed by *Rochford*. The intended applications of the two products, the problems confronted in the art of cable-wrapping adhesive tape (as detailed in the Applicant's specification), and the structural elements the Applicant invented to solve those problems, all are different. Nothing in *Rochford* even recognizes the problems confronted and solved by the Applicant, nor deals in any relevant way with any product other than adhesive surgical bandages. The Applicant respectfully submits that to sweep aside the specific structural limitations of the Applicant's cable-wrapping adhesive tape as recited in Claim 26, is to engage in impermissible hindsight reconstruction of a reference that fails to disclose or teach those limitations, singly and in the overall combination defined in that claim.

The rejection (page 3) states that “the limitation of ‘providing the carrier with a smooth surface...’” is given no patentable weight because the optical lustrous appearance and the substantially smooth surface would not be present in the final product because the pressure-sensitive coating would cover the surface. The Applicant fails to understand the reasoning behind that aspect of the rejection. Claim 26 includes the structural limitation that the carrier consists of a two-yarn system having a ribbed surface on one side and a smooth surface on the other side. An adhesive coating is located immediately on the smooth surface of the carrier. The beneficial result of that structural arrangement, in the claimed combination, is discussed at page 4, lines 37-39, of the Applicant’s specification. *Rochford* fails to disclose those elements, alone or in the claimed combination. The smooth surface is present although covered by the adhesive coating, and it produces a *structural result* and is entitled to patentable weight in the claimed combination, whether the smooth surface is hidden or invisible in the product.

One element of the cable-wrapping adhesive tape of Claim 26 is “a breaking strength extension in the longitudinal direction of not more than 60 %”. The surgical bandage of *Rochford* is disclosed as extensible in the longitudinal direction by 110 % to 160 %, preferably greater than 85 % in the longitudinal direction (page 1, lines 75-81). This elastic extensibility, i.e., the breaking extension of the *Rochford* bandage, is 25 % greater than in the Applicant’s claimed cable-wrapping tape. That is, *Rochford*’s preferred *minimum* longitudinal extent of 85 % exceeds the Applicant’s claimed *maximum* longitudinal extension by 25 %. Nothing in *Rochford* suggests that substantial change in his surgical bandage; the Applicant’s claimed maximum longitudinal extension of 60 % is far below the lower threshold of *Rochford*’s bandage, and *Rochford* teaches

directly away from that element of the cable-wrapping adhesive tape defined by Claim 26. Absent a teaching in the art, that difference in a different field of use constitutes more than merely discovering the optimum or workable ranges as the rejection asserts.

The cable-wrapping adhesive tape defined by Claim 26 includes a carrier consisting of a two-yarn system. That system has a ribbed surface on one side and a smooth surface on the other side. *Rochford* (page 2, lines 12-20) recommends a warp-knitted fabric produced on Rachelle knitting machines to produce the carrier for his surgical bandage, because of a wider possible range of stitches. To assume that a person skilled in the art at the time the present invention was made, starting from the *Rochford* surgical bandage teaching, would have derived all the characteristics of the claimed carrier and adhesive coating, in the combination of Claim 28 but not disclosed in *Rochford*, and would have chosen from the wide possible range of stitches “a two-yarn system having a ribbed surface on one side and the smooth surface on the other side” to make a cable winding adhesive tape, is, with respect, “obvious” only in hindsight.

Paragraph 7 of the rejection asserts that the requirement of Claim 13 to a two-yarn system is open-ended. That requirement, in new Claim 26 is closed, namely, the claim states that the carrier consists of a two-yarn system having certain other recited limitations. *Rochford* discloses (page 2, lines 1-4) that his fabric may comprise one, two, or more warps, a teaching inconsistent with the requirement of Claim 26. Nothing in *Rochford* teaches or suggests a cable-wrapping adhesive tape having a carrier consisting exactly of a two-yarn system, as now claimed. One of ordinary skill thus would not have found that teaching or suggestion in *Rochford*.

The rejection cites *In re Aller*, to support the argument of obviousness notwithstanding the absence in *Rochford* of the claimed limitations for thickness, adhesive weight, basis weight, and so on. According to the *Aller* Court, the reference cited in that case “shows essentially the same process as that recited in the claims, except that the only experiment discussed in the [reference] was conducted at a [different temperature]... and with a [different percentage of] sulphuric acid solution.” The Court in *Aller* did indeed state “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” The Court went on to say that “... one is not struck by any difference in *kind* attribute to both to Appellants’ process —logically the improvements could flow equally well from changes in *degree* resulting from routine variation in temperature or acid concentration” (emphasis in original). The Court thus recognized that both *Aller* and the cited reference disclosed the same subject matter —a particular chemical process—and concluded that *Aller*’s improvements were changes in degree resulting from routine variation in temperature or acid concentration.

The present case, however, it is not on all fours with *Aller*. The Applicant is claiming a self-windable cable wrapping adhesive tape disclosed as providing certain advantages in the intended field of cable wrapping vs. like tapes of the prior art. *Rochford*, in contrast with the Applicant, discloses a surgical bandage. No amount of “changes in *degree* resulting from routine variation” (using the Court’s wording in *Aller*) would have foreseeably resulted in transmuting that surgical bandage into a cable-wrapping adhesive tape containing the combination of elements set forth in Claim 26.

Accordingly, that claim defines nonobvious —and therefore patentable— subject matter over *Rochford*.

Claim 4 stands rejected as unpatentable over *Rochford* in view of *Murphy* (US 5,762,623). Claim 4 depends from new Claim 26 and adds the limitation that the adhesive tape is hand-tearable in the cross direction. *Murphy* mentions an elastic bandage that is hand-tearable in the transverse direction, and the rejection concludes that it would have been obvious to make the tape of *Rochford* tearable as suggested by *Murphy*. The Applicant respectfully traverses this rejection as possibly applied to Claim 4 including the limitations of parent Claim 26.

First of all, the surgical bandage of *Rochford* is not hand tearable; it is cut into webs, as disclosed at page 2, line 108 of *Rochford*. *Murphy* certainly discloses a hand-tearable elastic bandage, but hand-tearability is not a parameter which could be transferred from one reference to another without changing the respective structure. That is, if the surgical bandage of *Rochford* should have the hand-tearability of the *Murphy* bandage, the *Rochford* structure must be changed to become in effect the *Murphy* bandage, a laminated structure with a warp knitted first layer, an elastic second layer, and a binder coating. However, the claimed characteristics of the present invention, as to material thickness and the specific basis weight of the carrier, the grammage of the adhesive coating, and the breaking extension strength of the tape, combine to produce hand tearability as disclosed by the Applicant. *Rochford* is silent as to those characteristics and relies on cutting. Accordingly, Claim 4 is patentable over *Rochford* in view of *Murphy*.

Claim 7 stands rejected as unpatentable over *Rochford* in view of the *Czech* article. Claim 7 now depends from new Claim 26 and is patentable over the applied art for the reasons discussed above with regard to the parent claim.

Claim 15 is rejected as unpatentable over *Rochford* in view of *Spillane* (US 4,881,383). The Applicant traverses this rejection as possibly applied to Claim 15 depending from new Claim 26. In addition to the above arguments concerning Claim 26, even if a person skilled in the art would have used the stitches disclosed by *Spillane* in the *Rochford* surgical bandage, a carrier of that surgical bandage would not remain a two-yarn system as required by parent Claim 26. Moreover, nothing in that proposed combination would have produced a cable-wrapping adhesive tape consisting of a two-yarn system having a ribbed surface on one side and a smooth surface on the other side, and having the recited adhesive coating located immediately on the smooth surface of the carrier. Those limitations in combination, together with the other elements making up the combination of Claim 15, are not taught or suggested by *Rochford* in view of *Spillane*. Accordingly, Claim 15 is patentable thereover.


S/N 10/743,859

The foregoing is submitted as a complete response to the Office action identified above. The Applicant submits that the present application is in condition for allowance and solicits a notice to that effect.

Respectfully submitted,

MERCHANT & GOULD

Date: December 15, 2006



Roger T. Frost
Reg. No. 22,176

Merchant & Gould, LLC
P.O. Box 2903
Minneapolis, MN 55402-0903
Telephone: 404.954.5100

